

CLAIMS

What is claimed is:

1. A method for creating a presentation document, the method comprising:  
  
creating, in dependence upon an original document, a structured document  
5 comprising one or more structural elements;  
  
classifying a structural element of the structured document according to a  
presentation attribute; and  
  
10 creating a presentation grammar for the structured document, wherein the  
presentation grammar for the structured document includes grammar elements  
each of which includes an identifier for at least one structural element of the  
structured document.
2. The method of claim 1 wherein classifying a structural element comprises:  
  
identifying a presentation attribute for the structural element;  
  
5 identifying a classification identifier in dependence upon the presentation  
attribute; and  
  
inserting the classification identifier in association with the structural element  
in the structured document.  
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3. The method of claim 2 wherein:  
  
identifying a presentation attribute for the structural element includes  
selecting a presentation attribute from a list of supported presentation

5 attributes;

identifying a classification identifier includes identifying a classification identifier associated with the presentation attribute on the list; and

10 inserting the classification identifier includes manually editing the structured document.

4. The method of claim 2 wherein:

identifying a presentation attribute for the structural element includes selecting a presentation attribute from a list of supported presentation attributes, the presentation attribute having an associated classification identifier;

identifying a classification identifier includes inserting the classification identifier in a data structure in association with a structural element identifier for the structural element; and

15 inserting the classification identifier in the structured document includes reading the classification identifier from the data structure in dependence upon the structural element identifier.

5. The method of claim 2 further comprising providing a list of supported presentation attributes including at least one keyword and at least one indication of structural insertion scope for each presentation attribute, wherein:

5 identifying a presentation attribute for the structural element includes selecting a presentation attribute from the list in dependence upon a keyword from the structured document;

10 identifying a classification identifier includes identifying a classification  
identifier associated with the presentation attribute on the list; and  
  
inserting the classification identifier includes inserting the classification  
identifier in the structured document according to a structural insertion scope  
15 for the selected presentation attribute.

6. The method of claim 2 further comprising providing a list of supported  
presentation attributes including at least one data pattern and at least one  
indication of structural insertion scope for each presentation attribute,  
wherein:

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identifying a presentation attribute for the structural element includes  
selecting a presentation attribute from the list in dependence upon a data  
pattern from the structured document;

10 identifying a classification identifier includes identifying a classification  
identifier associated with the presentation attribute on the list; and  
  
inserting the classification identifier includes inserting the classification  
identifier in the structured document according to a structural insertion scope  
15 for the selected presentation attribute.

7. The method of claim 1 wherein creating a structured document further  
comprises inserting in the structured document structural element identifiers  
for the structural elements.

8. The method of claim 1 wherein creating a structured document further  
comprises converting existing structural element identifiers from the original  
document to structural element identifiers for the structural elements of the

structured document.

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9. The method of claim 1 wherein creating a presentation grammar for the structured document comprises:

identifying the content type of the original document;

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selecting, in dependence upon the content type, a full presentation grammar from among a multiplicity of full presentation grammars; and

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filtering the full presentation grammar into a presentation grammar for the structured document in dependence upon the structural elements of the structured document.

10. The method of claim 9 wherein the full grammar comprises a multiplicity of grammar elements for the content type, wherein each grammar element includes:

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an identifier of a structural element;  
a key phrase for invoking a presentation action; and  
a presentation action identifier representing a presentation action.

11. The method of claim 9 wherein filtering the full presentation grammar comprises writing from the full presentation grammar to the presentation grammar for the structured document each grammar element having an identifier of a structural element that occurs in the structured document.

12. A system for creating a presentation document, the system comprising:

means for creating, in dependence upon an original document, a structured document comprising one or more structural elements;

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means for classifying a structural element of the structured document according to a presentation attribute; and

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means for creating a presentation grammar for the structured document, wherein the presentation grammar for the structured document includes grammar elements each of which includes an identifier for at least one structural element of the structured document.

13. The system of claim 12 wherein means for classifying a structural element comprises:

means for identifying a presentation attribute for the structural element;

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means for identifying a classification identifier in dependence upon the presentation attribute; and

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means for inserting the classification identifier in association with the structural element in the structured document.

14. The system of claim 13 wherein:

means for identifying a presentation attribute for the structural element includes means for selecting a presentation attribute from a list of supported presentation attributes;

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means for identifying a classification identifier includes means for identifying

a classification identifier associated with the presentation attribute on the list;  
and

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means for inserting the classification identifier includes means for manually  
editing the structured document.

15. The system of claim 13 wherein:

means for identifying a presentation attribute for the structural element  
includes means for selecting a presentation attribute from a list of supported  
5 presentation attributes, the presentation attribute having an associated  
classification identifier;

means for identifying a classification identifier includes means for inserting  
the classification identifier in a data structure in association with a structural  
10 element identifier for the structural element; and

means for inserting the classification identifier in the structured document  
includes means for reading the classification identifier from the data structure  
in dependence upon the structural element identifier.

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16. The system of claim 13 further comprising means for providing a list of  
supported presentation attributes including at least one keyword and at least  
one indication of structural insertion scope for each presentation attribute,  
wherein:

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means for identifying a presentation attribute for the structural element  
includes means for selecting a presentation attribute from the list in  
dependence upon a keyword from the structured document;

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means for identifying a classification identifier includes means for identifying

a classification identifier associated with the presentation attribute on the list;  
and

15 means for inserting the classification identifier includes means for inserting  
the classification identifier in the structured document according to a  
structural insertion scope for the selected presentation attribute.

17. The system of claim 13 further comprising means for providing a list of  
supported presentation attributes including at least one data pattern and at  
least one indication of structural insertion scope for each presentation  
attribute, wherein:

5 means for identifying a presentation attribute for the structural element  
includes means for selecting a presentation attribute from the list in  
dependence upon a data pattern from the structured document;

10 means for identifying a classification identifier includes means for identifying  
a classification identifier associated with the presentation attribute on the list;  
and

15 means for inserting the classification identifier includes means for inserting  
the classification identifier in the structured document according to a  
structural insertion scope for the selected presentation attribute.

18. The system of claim 12 wherein means for creating a structured document  
further comprises means for inserting in the structured document structural  
element identifiers for the structural elements.

19. The system of claim 12 wherein means for creating a structured document  
further comprises means for converting existing structural element identifiers  
from the original document to structural element identifiers for the structural

elements of the structured document.

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20. The system of claim 12 wherein means for creating a presentation grammar for the structured document comprises:

means for identifying the content type of the original document;

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means for selecting, in dependence upon the content type, a full presentation grammar from among a multiplicity of full presentation grammars; and

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means for filtering the full presentation grammar into a presentation grammar for the structured document in dependence upon the structural elements of the structured document.

21. The system of claim 20 wherein the full grammar comprises a multiplicity of grammar elements for the content type, wherein each grammar element includes:

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an identifier of a structural element;  
a key phrase for invoking a presentation action; and  
a presentation action identifier representing a presentation action.

22. The system of claim 20 wherein means for filtering the full presentation grammar comprises means for writing from the full presentation grammar to the presentation grammar for the structured document each grammar element having an identifier of a structural element that occurs in the structured document.

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23. A computer program product for creating a presentation document, the computer program product comprising:

a recording medium;

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means, recorded on the recording medium, for creating, in dependence upon an original document, a structured document comprising one or more structural elements;

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means, recorded on the recording medium, for classifying a structural element of the structured document according to a presentation attribute; and

means, recorded on the recording medium, for creating a presentation grammar for the structured document, wherein the presentation grammar for the structured document includes grammar elements each of which includes an identifier for at least one structural element of the structured document.

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24. The computer program product of claim 23 wherein means, recorded on the recording medium, for classifying a structural element comprises:

means, recorded on the recording medium, for identifying a presentation attribute for the structural element;

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means, recorded on the recording medium, for identifying a classification identifier in dependence upon the presentation attribute; and

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means, recorded on the recording medium, for inserting the classification identifier in association with the structural element in the structured document.

25. The computer program product of claim 24 wherein:

5 means, recorded on the recording medium, for identifying a presentation attribute for the structural element includes means, recorded on the recording medium, for selecting a presentation attribute from a list of supported presentation attributes;

10 means, recorded on the recording medium, for identifying a classification identifier includes means, recorded on the recording medium, for identifying a classification identifier associated with the presentation attribute on the list; and

15 means, recorded on the recording medium, for inserting the classification identifier includes means, recorded on the recording medium, for manually editing the structured document.

26. The computer program product of claim 24 wherein:

5 means, recorded on the recording medium, for identifying a presentation attribute for the structural element includes means, recorded on the recording medium, for selecting a presentation attribute from a list of supported presentation attributes, the presentation attribute having an associated classification identifier;

10 means, recorded on the recording medium, for identifying a classification identifier includes means, recorded on the recording medium, for inserting the classification identifier in a data structure in association with a structural element identifier for the structural element; and

15 means, recorded on the recording medium, for inserting the classification identifier in the structured document includes means, recorded on the

recording medium, for reading the classification identifier from the data structure in dependence upon the structural element identifier.

27. The computer program product of claim 24 further comprising means, recorded on the recording medium, for providing a list of supported presentation attributes including at least one keyword and at least one indication of structural insertion scope for each presentation attribute, wherein:

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means, recorded on the recording medium, for identifying a presentation attribute for the structural element includes means, recorded on the recording medium, for selecting a presentation attribute from the list in dependence upon a keyword from the structured document;

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means, recorded on the recording medium, for identifying a classification identifier includes means, recorded on the recording medium, for identifying a classification identifier associated with the presentation attribute on the list; and

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means, recorded on the recording medium, for inserting the classification identifier includes means, recorded on the recording medium, for inserting the classification identifier in the structured document according to a structural insertion scope for the selected presentation attribute.

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28. The computer program product of claim 24 further comprising means, recorded on the recording medium, for providing a list of supported presentation attributes including at least one data pattern and at least one indication of structural insertion scope for each presentation attribute, wherein:

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means, recorded on the recording medium, for identifying a presentation

10 attribute for the structural element includes means, recorded on the recording medium, for selecting a presentation attribute from the list in dependence upon a data pattern from the structured document;

15 means, recorded on the recording medium, for identifying a classification identifier includes means, recorded on the recording medium, for identifying a classification identifier associated with the presentation attribute on the list; and

20 means, recorded on the recording medium, for inserting the classification identifier includes means, recorded on the recording medium, for inserting the classification identifier in the structured document according to a structural insertion scope for the selected presentation attribute.

29. The computer program product of claim 23 wherein means, recorded on the recording medium, for creating a structured document further comprises means, recorded on the recording medium, for inserting in the structured document structural element identifiers for the structural elements.

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30. The computer program product of claim 23 wherein means, recorded on the recording medium, for creating a structured document further comprises means, recorded on the recording medium, for converting existing structural element identifiers from the original document to structural element identifiers for the structural elements of the structured document.

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31. The computer program product of claim 23 wherein means, recorded on the recording medium, for creating a presentation grammar for the structured document comprises:

5 means, recorded on the recording medium, for identifying the content type of the original document;

means, recorded on the recording medium, for selecting, in dependence upon the content type, a full presentation grammar from among a multiplicity of full presentation grammars; and

means, recorded on the recording medium, for filtering the full presentation grammar into a presentation grammar for the structured document in dependence upon the structural elements of the structured document.

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32. The computer program product of claim 31 wherein the full grammar comprises a multiplicity of grammar elements for the content type, wherein each grammar element includes:

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an identifier of a structural element;  
a key phrase for invoking a presentation action; and  
a presentation action identifier representing a presentation action.

33. The computer program product of claim 31 wherein means, recorded on the recording medium, for filtering the full presentation grammar comprises means, recorded on the recording medium, for writing from the full presentation grammar to the presentation grammar for the structured document each grammar element having an identifier of a structural element that occurs in the structured document.

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